

ENTERED

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Output Set: N:\CRF3\11222000\I706325.raw

3 <110> APPLICANT: Reed, John C.
 4 Zapata, Juan M.
 6 <120> TITLE OF INVENTION: Novel TRAF Family Proteins
 8 <130> FILE REFERENCE: P-LJ 4453
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/706,325
 C--> 11 <141> CURRENT FILING DATE: 2000-11-03
 13 <150> PRIOR APPLICATION NUMBER: US 09/434,784
 14 <151> PRIOR FILING DATE: 1999-11-05
 16 <160> NUMBER OF SEQ ID NOS: 32
 18 <170> SOFTWARE: PatentIn Ver. 2.0
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 4022
 22 <212> TYPE: DNA
 23 <213> ORGANISM: Homo sapiens
 25 <220> FEATURE:
 26 <221> NAME/KEY: CDS
 27 <222> LOCATION: (200)..(3505)
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 34 gccccggctc gccgcgcgcc gccgcgcgcg ctgcgcgc ccgcgcgcgc ccgcaggcga 180
 36 ggcccagcgc gcggcgcac atg aac cac cag cag cag cag cag cag cag aaa 232
 Met Asn His Gln Gln Gln Gln Gln Gln Lys
 38 1 5 10
 40 qcg ggc gag cag cag ttg agc gag ccc qag gac atg gag atg gaa gcg 280
 41 Ala Gly Glu Gln Gln Leu Ser Glu Pro Glu Asp Met Glu Met Glu Ala
 42 15 20 25
 44 gga gat aca gat gac cca cca aga att act cag aac cct gtg atc aat 328
 45 Gly Asp Thr Asp Asp Pro Pro Arg Ile Thr Gln Asn Pro Val Ile Asn
 46 30 35 40
 48 ggg aat gtg gcc ctg agt gat gga cac aac acc gcg gag gag gac atg 376
 49 Gly Asn Val Ala Leu Ser Asp Gly His Asn Thr Ala Glu Glu Asp Met
 50 45 50 55
 52 gag gat gac acc agt tgg cgc tcc gag gca acc ttt cag ttc act gtg 424
 53 Glu Asp Asp Thr Ser Trp Arg Ser Glu Ala Thr Phe Gln Phe Thr Val
 54 60 65 70 75
 56 gag cgc ttc agc aga ctg agt gag tgc gtc ctt agc cct ccg tgt ttt 472
 57 Glu Arg Phe Ser Arg Leu Ser Glu Ser Val Leu Ser Pro Pro Cys Phe
 58 80 85 90
 60 gtg cga aat ctg cca tgg aag att atg gtg atg cca cgc ttt tat cca 520
 61 Val Arg Asn Leu Pro Trp Lys Ile Met Val Met Pro Arg Phe Tyr Pro
 62 95 100 105
 64 gac aga cca cac caa aaa agc gta gga ttc ttt ctc cag tgc aat gct 568
 65 Asp Arg Pro His Gln Lys Ser Val Gly Phe Phe Leu Gln Cys Asn Ala
 66 110 115 120
 68 gaa tct gat tcc acg tca tgg tct tgc cat gca caa gca gtg ctg aag 616
 69 Glu Ser Asp Ser Thr Ser Trp Ser Cys His Ala Gln Ala Val Leu Lys

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RAW SEQUENCE LISTING

DATE: 11/22/2000

PATENT APPLICATION: US/09/706,325

TIME: 12:59:11

Input Set : A:\Lj4453.app

Output Set: N:\CRF3\11222000\I706325.raw

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74 140      145      150      155
76 cat ttg ttc ttc cat aaa gaa aat gat tgg gga ttt tcc aat ttt atg 712
77 His Leu Phe Phe His Lys Glu Asn Asp Trp Gly Phe Ser Asn Phe Met
78      160      165      170
80 gcc tgg agt gaa gtg acc gat cct gag aaa gga ttt ata gat gat gac 760
81 Ala Trp Ser Glu Val Thr Asp Pro Glu Lys Gly Phe Ile Asp Asp Asp
82      175      180      185
84 aaa gtt acc ttt gaa gtc ttt gta cag gcg gat gct ccc cat gga gtt 808
85 Lys Val Thr Phe Glu Val Phe Val Gln Ala Asp Ala Pro His Gly Val
86      190      195      200
88 gcg tgg gat tca aag aag cac aca ggc tac gtc ggc tta aag aat cag 856
89 Ala Trp Asp Ser Lys Lys His Thr Gly Tyr Val Gly Leu Lys Asn Gln
90      205      210      215
92 gga gcg act tgt tac atg aac agc ctg cta cag acg tta ttt ttc acg 904
93 Gly Ala Thr Cys Tyr Met Asn Ser Leu Leu Gln Thr Leu Phe Phe Thr
94 220      225      230      235
96 aat cag cta cga aag gct gtg tac atg atg cca acc gag ggg gat gat 952
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98      240      245      250
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101 Ser Ser Lys Ser Val Pro Leu Ala Leu Gln Arg Val Phe Tyr Glu Leu
102      255      260      265
104 cag cat agt gat aaa cct gta gga aca aaa aag tta aca aag tca ttt 1048
105 Gln His Ser Asp Lys Pro Val Gly Thr Lys Lys Leu Thr Lys Ser Phe
106      270      275      280
108 ggg tgg gaa act tta gat agc ttc atg caa cat gat gtt cag gag ctt 1096
109 Gly Trp Glu Thr Leu Asp Ser Phe Met Gln His Asp Val Gln Glu Leu
110      285      290      295
112 tgt cga ttg ttg ctc gat aat gtg gaa aat aag atg aaa ggc acc tgt 1144
113 Cys Arg Val Leu Leu Asp Asn Val Glu Asn Lys Met Lys Gly Thr Cys
114 300      305      310      315
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117 Val Glu Gly Thr Ile Pro Lys Leu Phe Arg Gly Lys Met Val Ser Tyr
118      320      325      330
120 atc cag tgt aaa gaa gta gac tat cgg tct gat aga aga gaa gat tat 1240
121 Ile Gln Cys Lys Glu Val Asp Tyr Arg Ser Asp Arg Arg Glu Asp Tyr
122      335      340      345
124 tat gat atc cag cta agt atc aaa gga aag aaa aat ata ttt gaa tca 1288
125 Tyr Asp Ile Gln Leu Ser Ile Lys Gly Lys Lys Asn Ile Phe Glu Ser
126      350      355      360
128 ttt gtg gat tat gtg gca gta gaa cag ctc gat ggg gac aat aaa tac 1336
129 Phe Val Asp Tyr Val Ala Val Glu Gln Leu Asp Gly Asp Asn Lys Tyr
130      365      370      375
132 gac gct ggg gaa cat ggc tta cag gaa gca gag aaa ggt gtg aaa ttc 1384
133 Asp Ala Gly Glu His Gly Leu Gln Glu Ala Glu Lys Gly Val Lys Phe
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| 137 | Leu | Thr | Leu | Pro | Pro | Val | Leu | His | Leu | Gln | Leu | Met | Arg | Phe | Met | Tyr | |
| 138 | | | | 400 | | | | | 405 | | | | | 410 | | | |
| 140 | gac | cct | cag | acg | gac | caa | aat | atc | aag | atc | aat | gat | agg | ttt | gaa | ttc | 1480 |
| 141 | Asp | Pro | Gln | Thr | Asp | Gln | Asn | Ile | Lys | Ile | Asn | Asp | Arg | Phe | Glu | Phe | |
| 142 | | | | 415 | | | | | 420 | | | | | 425 | | | |
| 144 | cca | gag | cag | tta | cca | ctt | gat | qaa | ttt | ttg | caa | aaa | aca | gat | cct | aag | 1528 |
| 145 | Pro | Glu | Gln | Leu | Pro | Leu | Asp | Glu | Phe | Leu | Gln | Lys | Thr | Asp | Pro | Lys | |
| 146 | | | | 430 | | | | | 435 | | | | | 440 | | | |
| 148 | gac | cct | gca | aat | tat | att | ctt | cat | gca | gtc | ctg | gtt | cat | agt | gga | gat | 1576 |
| 149 | Asp | Pro | Ala | Asn | Tyr | Ile | Leu | His | Ala | Val | Leu | Val | His | Ser | Gly | Asp | |
| 150 | | | | 445 | | | | | 450 | | | | | 455 | | | |
| 152 | aat | cat | ggt | gga | cat | tat | gtg | gtt | tat | cta | aac | ccc | aaa | ggg | gat | ggc | 1624 |
| 153 | Asn | His | Gly | Gly | His | Tyr | Val | Val | Tyr | Leu | Asn | Pro | Lys | Gly | Asp | Gly | |
| 154 | 460 | | | | 465 | | | | 470 | | | | | 475 | | | |
| 156 | aaa | tgg | tgt | aaa | ttt | gat | gac | gac | gtg | gtg | tca | agg | tgt | act | aaa | gag | 1672 |
| 157 | Lys | Trp | Cys | Lys | Phe | Asp | Asp | Asp | Val | Val | Ser | Arg | Cys | Thr | Lys | Glu | |
| 158 | | | | 480 | | | | | 485 | | | | | 490 | | | |
| 160 | gaa | gca | att | gag | cac | aat | tat | ggg | ggt | cac | gat | gac | gac | ctg | tct | gtt | 1720 |
| 161 | Glu | Ala | Ile | Glu | His | Asn | Tyr | Gly | Gly | His | Asp | Asp | Asp | Leu | Ser | Val | |
| 162 | | | | 495 | | | | | 500 | | | | | 505 | | | |
| 164 | cga | cac | tgc | act | aat | gct | tac | atg | tta | gtc | tac | atc | agg | gaa | tca | aaa | 1768 |
| 165 | Arg | His | Cys | Thr | Asn | Ala | Tyr | Met | Leu | Val | Tyr | Ile | Arg | Glu | Ser | Lys | |
| 166 | | | | 510 | | | | | 515 | | | | | 520 | | | |
| 168 | ctg | agt | gaa | gtt | tta | cag | gcg | gtc | acc | gac | cat | gat | att | cct | cag | cag | 1816 |
| 169 | Leu | Ser | Glu | Val | Leu | Gln | Ala | Val | Thr | Asp | His | Asp | Ile | Pro | Gln | Gln | |
| 170 | | | | 525 | | | | | 530 | | | | | 535 | | | |
| 172 | ttg | gtg | gag | cga | tta | caa | gaa | gag | aaa | agg | atc | gag | gct | cag | aag | cgg | 1864 |
| 173 | Leu | Val | Glu | Arg | Leu | Gln | Glu | Glu | Lys | Arg | Ile | Glu | Ala | Gln | Lys | Arg | |
| 174 | 540 | | | | 545 | | | | 550 | | | | | 555 | | | |
| 176 | aag | gag | cgg | cag | gaa | gcc | cat | ctc | tat | atg | caa | gtg | cag | ata | gtc | gca | 1912 |
| 177 | Lys | Glu | Arg | Gln | Glu | Ala | His | Leu | Tyr | Met | Gln | Val | Gln | Ile | Val | Ala | |
| 178 | | | | 560 | | | | | 565 | | | | | 570 | | | |
| 180 | gag | gac | cag | ttt | tgt | ggc | cac | caa | ggg | aat | gac | atg | tac | gat | gaa | gaa | 1960 |
| 181 | Glu | Asp | Gln | Phe | Cys | Gly | His | Gln | Gly | Asn | Asp | Met | Tyr | Asp | Glu | Glu | |
| 182 | | | | 575 | | | | | 580 | | | | | 585 | | | |
| 184 | aaa | gtg | aaa | tac | act | gtg | ttc | aaa | gta | ttg | aag | aac | tcc | tcg | ctt | gct | 2008 |
| 185 | Lys | Val | Lys | Tyr | Thr | Val | Phe | Lys | Val | Leu | Lys | Asn | Ser | Ser | Leu | Ala | |
| 186 | | | | 590 | | | | | 595 | | | | | 600 | | | |
| 188 | gag | ttt | gtt | cag | agc | ctc | tct | cag | acc | atg | gga | ttt | cca | caa | gat | caa | 2056 |
| 189 | Glu | Phe | Val | Gln | Ser | Leu | Ser | Gln | Thr | Met | Gly | Phe | Pro | Gln | Asp | Gln | |
| 190 | | | | 605 | | | | | 610 | | | | | 615 | | | |
| 192 | att | cga | ttg | tgg | ccc | atg | caa | gca | agg | agt | aat | gga | aca | aaa | cga | cca | 2104 |
| 193 | Ile | Arg | Leu | Trp | Pro | Met | Gln | Ala | Arg | Ser | Asn | Gly | Thr | Lys | Arg | Pro | |
| 194 | 620 | | | | 625 | | | | 630 | | | | | 635 | | | |
| 196 | gca | atg | tta | gat | aat | gaa | gcc | gac | ggc | aat | aaa | aca | atg | att | gag | ctc | 2152 |
| 197 | Ala | Met | Leu | Asp | Asn | Glu | Ala | Asp | Gly | Asn | Lys | Thr | Met | Ile | Glu | Leu | |
| 198 | | | | 640 | | | | | 645 | | | | | 650 | | | |
| 200 | agt | gat | aat | gaa | aac | cct | tgy | aca | ata | ttc | ctg | gaa | aca | gtt | gat | ccc | 2200 |

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| 202 | | | | 655 | | | | | 660 | | | | | 665 | | | |
| 204 | gag | ctg | gct | gct | agt | gga | gcg | acc | tta | ccc | aag | ttt | gat | aaa | gat | cat | 2248 |
| 205 | Glu | Leu | Ala | Ala | Ser | Gly | Ala | Thr | Leu | Pro | Lys | Phe | Asp | Lys | Asp | His | |
| 206 | | | | 670 | | | | 675 | | | | | 680 | | | | |
| 208 | gat | gta | atg | tta | ttt | ttg | aag | atg | tat | gat | ccc | aaa | acg | cgg | agc | ttg | 2296 |
| 209 | Asp | Val | Met | Leu | Phe | Leu | Lys | Met | Tyr | Asp | Pro | Lys | Thr | Arg | Ser | Leu | |
| 210 | | | | 685 | | | 690 | | | | | 695 | | | | | |
| 212 | aat | tac | tgt | ggg | cat | atc | tac | aca | cca | ata | tcc | tgt | aaa | ata | cgt | gac | 2344 |
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| 216 | ttg | ctc | cca | gtt | atg | tgt | gac | aga | gca | gga | ttt | att | caa | gat | act | agc | 2392 |
| 217 | Leu | Leu | Pro | Val | Met | Cys | Asp | Arg | Ala | Gly | Phe | Ile | Gln | Asp | Thr | Ser | |
| 218 | | | | | 720 | | | | | 725 | | | | | 730 | | |
| 220 | ctt | atc | ctc | tat | gag | gaa | glt | aaa | ccg | aat | tta | aca | gag | aga | att | cag | 2440 |
| 221 | Leu | Ile | Leu | Tyr | Glu | Glu | Val | Lys | Pro | Asn | Leu | Thr | Glu | Arg | Ile | Gln | |
| 222 | | | | 735 | | | | 740 | | | | | 745 | | | | |
| 224 | gac | tat | gac | gtg | tct | ctt | gat | aaa | gcc | ctt | gat | gaa | cta | atg | gat | ggt | 2488 |
| 225 | Asp | Tyr | Asp | Val | Ser | Leu | Asp | Lys | Ala | Leu | Asp | Glu | Leu | Met | Asp | Gly | |
| 226 | | | | 750 | | | | 755 | | | | | 760 | | | | |
| 228 | gac | atc | ata | gta | ttt | cag | aag | gat | gac | cct | gaa | aat | gat | aac | agt | gaa | 2536 |
| 229 | Asp | Ile | Ile | Val | Phe | Gln | Lys | Asp | Asp | Pro | Glu | Asn | Asp | Asn | Ser | Glu | |
| 230 | | | | 765 | | | 770 | | | | 775 | | | | | | |
| 232 | tta | ccc | acc | gca | aag | gag | tat | ttc | cga | gat | ctc | tac | cac | cgc | gtt | gat | 2584 |
| 233 | Leu | Pro | Thr | Ala | Lys | Glu | Tyr | Phe | Arg | Asp | Leu | Tyr | His | Arg | Val | Asp | |
| 234 | 780 | | | | 785 | | | | | | 790 | | | | | 795 | |
| 236 | gtc | att | ttc | tgt | gat | aaa | aca | atc | cct | aat | gat | cct | gga | ttt | gtg | gtt | 2632 |
| 237 | Val | Ile | Phe | Cys | Asp | Lys | Thr | Ile | Pro | Asn | Asp | Pro | Gly | Phe | Val | Val | |
| 238 | | | | 800 | | | | | | 805 | | | | | 810 | | |
| 240 | acg | tta | tca | aat | aga | atg | aat | tat | ttt | cag | glt | gca | aag | aca | glt | gca | 2680 |
| 241 | Thr | Leu | Ser | Asn | Arg | Met | Asn | Tyr | Phe | Gln | Val | Ala | Lys | Thr | Val | Ala | |
| 242 | | | | 815 | | | | | 820 | | | | | 825 | | | |
| 244 | cag | agg | ctc | aac | aca | gat | cca | atg | ttg | ctg | cag | ttt | ttc | aag | tct | caa | 2728 |
| 245 | Gln | Arg | Leu | Asn | Thr | Asp | Pro | Met | Leu | Leu | Gln | Phe | Phe | Lys | Ser | Gln | |
| 246 | | | | 830 | | | | 835 | | | | | 840 | | | | |
| 248 | ggt | tat | agg | gat | ggc | cca | ggt | aat | cct | ctt | aga | cat | aat | tat | gaa | ggt | 2776 |
| 249 | Gly | Tyr | Arg | Asp | Gly | Pro | Gly | Asn | Pro | Leu | Arg | His | Asn | Tyr | Glu | Gly | |
| 250 | | | | 845 | | | | 850 | | | | | 855 | | | | |
| 252 | act | tta | aga | gat | ctt | cta | cag | ttc | ttc | aag | cct | aga | caa | cct | aag | aaa | 2824 |
| 253 | Thr | Leu | Arg | Asp | Leu | Leu | Gln | Phe | Phe | Lys | Pro | Arg | Gln | Pro | Lys | Lys | |
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| 256 | ctt | tac | tat | cag | cag | ctt | aag | atg | aaa | atc | aca | gac | ttt | gag | aac | agg | 2872 |
| 257 | Leu | Tyr | Tyr | Gln | Gln | Leu | Lys | Met | Lys | Ile | Thr | Asp | Phe | Glu | Asn | Arg | |
| 258 | | | | | 880 | | | | | 885 | | | | | 890 | | |
| 260 | cga | agt | ttt | aaa | tgt | ata | tgg | tta | aac | agc | caa | ttt | agg | gaa | gag | gaa | 2920 |
| 261 | Arg | Ser | Phe | Lys | Cys | Ile | Trp | Leu | Asn | Ser | Gln | Phe | Arg | Glu | Glu | Glu | |
| 262 | | | | 895 | | | | | 900 | | | | | 905 | | | |
| 264 | ata | aca | cta | tat | cca | gac | aag | cat | ggg | tgt | gtc | cgg | gac | ctg | tta | gaa | 2968 |
| 265 | Ile | Thr | Leu | Tyr | Pro | Asp | Lys | His | Gly | Cys | Val | Arg | Asp | Leu | Leu | Glu | |

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269 Glu Cys Lys Lys Ala Val Glu Leu Gly Glu Lys Ala Ser Gly Lys Leu
270          925          930          935
272 agg ctg cta gaa att gta agc tac aaa atc att ggt gtt cat caa gaa 3064
273 Arg Leu Leu Glu ile Val Ser Tyr Lys ile ile Gly Val His Gln Glu
274 940          945          950          955
276 gat gaa cta tta gaa tgt tta tct cct gca acg agc cgg acg ttt cga 3112
277 Asp Glu Leu Leu Glu Cys Leu Ser Pro Ala Thr Ser Arg Thr Phe Arg
278          960          965          970
280 ata gag gaa atc cct ttg gac caa gtg gac ata gac aaa gag aat gag 3160
281 Ile Glu Glu ile Pro Leu Asp Gln Val Asp ile Asp Lys Glu Asn Glu
282          975          980          985
284 atg ctt gtc aca gtg gcg cat ttc cac aaa gag gtc ttc gga acg ttc 3208
285 Met Leu Val Thr Val Ala His Phe His Lys Glu Val Phe Gly Thr Phe
286          990          995          1000
288 gga atc ccg ttt ttg ctg agg ata cac caa ggc gag cat ttt cga gaa 3256
289 Gly ile Pro Phe Leu Leu Arg ile His Gln Gly Glu His Phe Arg Glu
290          1005          1010          1015
292 gtg atg aag cga atc caa agc ctg ctg gac atc cag gag aag gag ttt 3304
293 Val Met Lys Arg ile Gln Ser Leu Leu Asp ile Gln Glu Lys Glu Phe
294 1020          1025          1030          1035
296 gag aag ttt aaa ttt gca att gta atg acg ggc cga cac cag tac ata 3352
297 Glu Lys Phe Lys Phe Ala ile Val Met Thr Gly Arg His Gln Tyr ile
298          1040          1045          1050
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302          1055          1060          1065
304 ggt aat atg tct cat cct cgg cct tgg cta ggg ctg gac cac ttc aac 3448
305 Gly Asn Met Ser His Pro Arg Pro Trp Leu Gly Leu Asp His Phe Asn
306          1070          1075          1080
308 aaa gcc cca aag agg agt cgc tac act tac ctt gaa aag gcc att aaa 3496
309 Lys Ala Pro Lys Arg Ser Arg Tyr Thr Tyr Leu Glu Lys Ala ile Lys
310          1085          1090          1095
312 atc cat aac tgatttccaa gctggtgtgt tcaaggcgag gacggtgtgt 3545
313 Ile His Asn
314 1100
316 ggggtggccc ttaacagcct agaactttgg tgcacgtgccc ctctagccga agtcttcagc 3605
318 aagaggattc gctgctggtg ttaattttat tttattgagg ctgttcagtt tggctttctt 3665
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326 tggctcggtt gccttcctgg ggtcccggtg accagccctg cagctagcaa gtcttctgtt 3905
328 taggctcgtc tgacctatit ccttcagtta tactttcaat gaccttttgt gcatctgtta 3965
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333 <210> SEQ ID NO: 2
334 <211> LENGTH: 1102
335 <212> TYPE: PRT
336 <213> ORGANISM: Homo sapiens

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FYI:

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/706,325

DATE: 11/22/2000
TIME: 12:59:12

Input Set : A:\Lj4453.app
Output Set: N:\CRF3\11222000\I706325.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1683 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1686 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1692 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:1846 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:1849 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:1852 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:1855 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:1858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:1861 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:1864 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:1867 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:2081 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2087 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2090 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2093 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2096 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2099 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22

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